

REMARKS

As of the 20 June 2007 final *Office Action*, Claims 1-53 are pending in the Application. In the *Office Action*, Examiner rejects all pending claims. Applicants thank Examiner with appreciation for the careful consideration and examination given to the Application. By this *Response*, Applicants amend certain claims to clarify some currently claimed embodiments of the invention. No new matter is believed introduced in this submission as at least ¶¶ 0024, 0040, and 0047 of Applicants' *Specification* support the clarifying amendments.

Applicants submit this response solely to facilitate prosecution. As such, Applicants reserve the right to present new or additional claims in this Application that have similar or broader scope as originally filed. Applicants also reserve the right to present additional claims in a later-filed continuation application that have similar or broader scope as originally filed. Accordingly, any amendment, argument, or claim cancellation is not to be construed as abandonment or disclaimer of subject matter.

After entry of this *Response*, Claims 1-53 are pending in the Application, with Claims 1, 13, 36, 43, and 50 having been amended. Applicants respectfully assert that the pending claims are in condition for allowance over the references of record, and respectfully requests reconsideration of the claims in light of this submission. Applicants, accordingly, believe that the Application is allowable for the following reasons.

I. Overview of the Rejections under 35 U.S.C. §103

In the *Office Action*, Claims 1-53 are rejected under 35 U.S.C. § 103(a).

Claims 1-11 and 13-53 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,356,206 to Salvo et al. ("Salvo") in view of U.S. Patent No. 5,481,532 to Hassan ("Hassan") in further view of U.S. Patent No. 6,115,580 to Chuprun et al. ("Chuprun").

Claim 12 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Salvo, Hassan, and Chuprun, in further view of U.S. Patent Application No. 2003/0046377 to Daum et al. ("Daum").

As MPEP § 2143 provides, a *prima facie* case of obviousness requires three factual findings. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference

or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest ***all the claim features*** as a whole. All three findings must be present to properly support a *prima facie* case of obviousness.

The Federal Circuit has recently reaffirmed the “functional approach” to obviousness determinations, which dictates that a combination is not obvious if it yields unpredictable results. *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740 (2007)

The Federal Circuit has also stated that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In Re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

In the present Application, Claims 1-53 as amended are patentable because the cited references do not teach or suggest ***all the claim features***. Further, the combination of the features recited in Claims 1-53 would not have been a predictable result from the teachings of the cited references.

II. Claims 1-12 Are Patentable Over The Cited References

Claim 1 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Salvo in view of Hassan in further view of Chuprun. Claim 1 as amended, however, is patentable over Salvo, Hassan, and Chuprun because it recites features that are not disclosed in or a predictable result of the combination of the cited references.

On page 2 of the Office Action, Examiner states that “the claim language only require at least one from the list of ‘pollution detector type, detected pollution levels, and pollution detector operations status.’” Examiner concludes that Salvo teaches this feature since “Salvo teaches a sensor detect the contaminant level of the ground water and transmit these information to other transceiver.”

Claim 1 is amended to recite the pollution information message contains information including each of “pollution detector type, detected pollution levels, and pollution detector operational status.” By Examiner’s admission, Salvo only teaches transmitting detected pollution levels, and does not teach transmitting information related to pollution detector type and operational status. Hassan and Chuprun are not related to pollution detectors, and thus do not cure Salvo’s defects.

Therefore, a pollution detector transmitting a message containing information regarding the pollution detector type, detected pollution levels, and pollution detector operational status is not a predictable use of a pollution detector from the teachings of Salvo, Hassan, and Chuprun. *Ex parte Catan*, (PTO Bd. App. & Int. July 3, 2007, page 10) (“The operative question in this ‘functional approach’ is thus ‘whether the improvement is more than the predictable use of prior art elements according to their established functions.’”)

Claim 12 is rejected as allegedly being unpatentable over Salvo, Hassan, and Chuprun in further view of Daum. Claim 12 is directly dependent upon Claim 1. Since Daum does not relate to pollution detectors, it does not cure Salvo, Hassan, and Chuprun’s defects with regard to Claim 1. Therefore, Claim 12 is patentable over Salvo, Hassan, Chuprun, and Daum due to its dependence upon Claim 1.

For at least these reasons, Salvo, Hassan, and Chuprun, alone or in combination, fail to disclose, teach or suggest each and every feature of Claim 1. Thus, Applicants respectfully submit that Claim 1 is patentable over Salvo, Hassan, and Chuprun, and is in condition for allowance. Further, Claims 2-12 are also believed to be in condition for allowance at least due to their dependence upon Claim 1, and further features defined therein.

III. Claims 13-24 Are Patentable Over The Cited References

Claim 13 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Salvo in view of Hassan in further view of Chuprun. Claim 13 as amended, however, is patentable over Salvo, Hassan, and Chuprun because it recites features that are not disclosed in or a predictable result of the combination of the cited references.

Salvo teaches a pollution detector that provides either historical or continuous, real-time data of pollution levels. (Salvo, Col. 5 – Lns. 31-44). Claim 13 as amended recites a pollution detector configured to generate a message when the pollution level exceeds a predetermined threshold. The detector recited in Claim 13 is distinct from the detector taught in Salvo, since the recited detector transmits data when pollution exceeds a threshold rather than providing continuous, real-time data, and does not transmit historical data. Indeed, continuous, real-time reading of pollution levels as taught in Salvo is the exact opposite of discrete readings of individual points in time when a pollution threshold is exceeded as recited in Claim 13. Hassan and Chuprun are not related to pollution detectors, and thus do not cure Salvo’s defects.

Therefore, a pollution detector configured to generate a message when the pollution level exceeds a predetermined threshold is not a predictable use of a pollution detector from the teachings of Salvo, Hassan, and Chuprun. *Ex parte Catan*, (PTO Bd. App. & Int. July 3, 2007) (“The operative question in this ‘functional approach’ is thus ‘whether the improvement is more than the predictable use of prior art elements according to their established functions.’”)

For at least these reasons, Salvo, Hassan, and Chuprun, alone or in combination, fail to disclose, teach or suggest each and every feature of Claim 13. Thus, Applicants respectfully submit that Claim 13 is patentable over Salvo, Hassan, and Chuprun, and is in condition for allowance. Further, Claims 14-23 are also believed to be in condition for allowance at least due to their dependence upon Claim 1, and further features defined therein.

IV. Claims 24-35 Are Patentable Over The Cited References

Claims 24 and 25 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Salvo in view of Hassan in further view of Chuprun. Claims 24 and 25, however, are patentable over Salvo, Hassan, and Chuprun because each recites features that are not disclosed in or a predictable result of the combination of the cited references.

Similar to Claim 1, Claims 24 and 25 each contain the feature that the pollution information message contain information regarding pollution detector type, detected pollution levels and pollution detector operational status. Salvo, Hassan, and Chuprun do not disclose this feature for the reason discussed above regarding Claim 1.

For at least these reasons, Salvo, Hassan, and Chuprun, alone or in combination, fail to disclose, teach or suggest each and every feature of Claims 24 and 25. Thus, Applicants respectfully submit that Claim 13 is patentable over Salvo, Hassan, and Chuprun, and is in condition for allowance. Further, Claims 26-25 are also believed to be in condition for allowance at least due to their dependence upon Claim 25, and further features defined therein.

V. Claims 36-42 Are Patentable Over The Cited References

Claim 36 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Salvo in view of Hassan in further view of Chuprun. Claim 13 as amended, however, is patentable over Salvo, Hassan, and Chuprun because it recites features that are not disclosed in or a

predictable result of the combination of the cited references.

Salvo teaches a pollution detector in communication with a control site over a wireless network of transceivers. Claim 36 as amended recites converting the broadcasted pollution information message into a standardized RS 232 or RS 485 signal for communication over a hardwire connection. Salvo does not teach converting the signal from the pollution detector into a standard format for communication over a hardwire connection. In particular, Salvo does not teach converting the signal into either of RS 232 or RS 485 formats. Hassan and Chuprun are not related to pollution detectors, and thus do not cure Salvo's defects.

Therefore, converting a broadcasted pollution information message from a pollution detector into a standardized RS 232 or RS 485 signal for communication over a hardwire connection is not a predictable use of a monitoring system from the teachings of Salvo, Hassan, and Chuprun. *Ex parte Catan*, (PTO Bd. App. & Int. July 3, 2007, page 10) (“The operative question in this ‘functional approach’ is thus ‘whether the improvement is more than the predictable use of prior art elements according to their established functions.’”)

For at least these reasons, Salvo, Hassan, and Chuprun, alone or in combination, fail to disclose, teach or suggest each and every feature of Claim 36. Thus, Applicants respectfully submit that Claim 36 is patentable over Salvo, Hassan, and Chuprun, and is in condition for allowance. Further, Claims 37-42 are also believed to be in condition for allowance at least due to their dependence upon Claim 36, and further features defined therein.

V. Claims 43-49 Are Patentable Over The Cited References

Claim 43 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Salvo in view of Hassan in further view of Chuprun. Claim 13 as amended, however, is patentable over Salvo, Hassan, and Chuprun because it recites features that are not disclosed in or a predictable result of the combination of the cited references.

Salvo teaches a pollution detector in communication with a control site over a wireless network of transceivers. Claim 43 as amended recites a means for communicating the pollution information message from the transceiver to a network transceiver such that the pollution information message is communicated over public switched telephone network (PSTN) to a pollution monitoring management controller. Salvo does not teach transmitting any part of the signal from the pollution detector over a PSTN. Indeed, Salvo teaches transmitting the signal

entirely wirelessly, which is the very opposite of a PSTN. Hassan and Chuprun are not related to pollution detectors and do not disclose use of a PSTN, and thus do not cure Salvo's defects.

Therefore, communicating the pollution information message from the transceiver to a network transceiver such that the pollution information message is communicated over a PSTN to a pollution monitoring management controller is not a predictable use of a monitoring system from the teachings of Salvo, Hassan, and Chuprun. *Ex parte Catan*, (PTO Bd. App. & Int. July 3, 2007) ("The operative question in this 'functional approach' is thus 'whether the improvement is more than the predictable use of prior art elements according to their established functions.'")

For at least these reasons, Salvo, Hassan, and Chuprun, alone or in combination, fail to disclose, teach or suggest each and every feature of Claim 43. Thus, Applicants respectfully submit that Claim 43 is patentable over Salvo, Hassan, and Chuprun, and is in condition for allowance. Further, Claims 44-49 are also believed to be in condition for allowance at least due to their dependence upon Claim 43, and further features defined therein.

VI. Claims 50-52 Are Patentable Over The Cited References

Claim 50 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Salvo in view of Hassan in further view of Chuprun. Claim 13 as amended, however, is patentable over Salvo, Hassan, and Chuprun because it recites features that are not disclosed in or a predictable result of the combination of the cited references.

Salvo teaches a pollution detector in communication with a control site over a wireless network of transceivers. Claim 50 as amended recites a means for converting the broadcasted pollution information message into a standardized RS 232 or RS 485 signal for communication over a hardwire connection. Salvo does not teach a means for converting the signal from the pollution detector into a standard format for communication over a hardwire connection. In particular, Salvo does not teach converting the signal into either of RS 232 or RS 485 formats. Hassan and Chuprun are not related to pollution detectors, and thus do not cure Salvo's defects.

Therefore, including a means for converting the broadcasted pollution information message from a pollution detector into a standardized RS 232 or RS 485 signal for communication over a hardwire connection is not a predictable use of a monitoring system from the teachings of Salvo, Hassan, and Chuprun. *Ex parte Catan*, (PTO Bd. App. & Int. July 3, 2007) ("The operative question in this 'functional approach' is thus 'whether the improvement is

more than the predictable use of prior art elements according to their established functions.’’))

For at least these reasons, Salvo, Hassan, and Chuprun, alone or in combination, fail to disclose, teach or suggest each and every feature of Claim 50. Thus, Applicants respectfully submit that Claim 50 is patentable over Salvo, Hassan, and Chuprun, and is in condition for allowance. Further, Claims 51-52 are also believed to be in condition for allowance at least due to their dependence upon Claim 50, and further features defined therein.

VII. Claim 53 Is Patentable Over The Cited References

Claim 53 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Salvo in view of Hassan in further view of Chuprun. Claims 53 as amended, however, is patentable over Salvo, Hassan, and Chuprun because it recites features that are not disclosed in or a predictable result of the combination of the cited references.

Similar to Claim 1, Claims 53 contains the feature that the pollution information message contain information regarding pollution detector type, detected pollution levels and pollution detector operational status. Salvo, Hassan, and Chuprun do not disclose this feature for the reason discussed above regarding Claim 1.

For at least these reasons, Salvo, Hassan, and Chuprun, alone or in combination, fail to disclose, teach or suggest each and every feature of Claim 53. Thus, Applicants respectfully submit that Claim 53 is patentable over Salvo, Hassan, and Chuprun, and is in condition for allowance.

VIII. Fees

This *Response and Amendment* is being filed within 3 months of the final *Office Action*, and no extension of time fee is believed due. The amendments to the application do not change the number of claims, and thus no claim fees are believed due. This amendment is being submitted with a *Request for Continued Examiner* under 37 C.F.R. §1.114, and the Commissioner is authorized to charge the fee required for the request to Deposit Account No. 20-1507. The Commissioner is further expressly authorized to charge any additional fees that may be required, or credit any overpayment, to Deposit Account No. 20-1507.

IX. Conclusion

This *Response* is believed to be a complete response to the 20 June 2007 *Office Action*. Applicants respectfully assert that all pending claims are in condition for allowance and respectfully request issuance of this case in due course of *Patent Office* business. If Examiner believes there are other issues that can be resolved by a telephone interview, or there are any informalities remaining in the application correctable by an Examiner's amendment, a telephone call to Filip Kowalewski at (404) 885-3487 is respectfully requested.

Respectfully submitted,

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